

THOROSEAL®

Version 1.3

07/09/2004

1. PRODUCT AND COMPANY INFORMATION

Company : **Degussa Building Systems**
889 Valley Park Drive
Shakopee, MN 55379

Telephone : 952-496-6000

Emergency telephone number : (800) 424-9300
(703) 527-3887 (Outside Continental US)

Product name : THOROSEAL®

MSDS ID No. : 10917

TSCA Inventory : All components of this product are included, or are exempt from inclusion, in the EPA Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

Canadian DSL : All components of this product are included, or are exempt from inclusion, in the Canadian Domestic Substance List (DSL).

Product Use Description : Cement

2. HAZARDOUS INGREDIENTS

<u>Chemical</u>	<u>CAS No.</u>	<u>TLV</u>	<u>STEL</u>	<u>PEL</u>	<u>CEIL</u>	<u>Weight %</u>
SILICA, CRYSTALLINE QUARTZ	14808-60-7	0.05 mg/m3	N.E.	5 mg/m3	N.E.	30.00 - 60.00 %
PORTLAND CEMENT	65997-15-1	10 mg/m3	N.E.	5 mg/m3	N.E.	20.00 - 50.00 %
IRON OXIDE	1309-37-1	5 mg/m3	N.E.	10 mg/m3	N.E.	0.00 - 10.00 %
IRON OXIDE	1317-61-9	3 mg/m3	N.E.	N.E.	N.E.	0.00 - 10.00 %
MAGNESIUM OXIDE	1309-48-4	10 mg/m3	N.E.	15 mg/m3	N.E.	0.00 - 5.00 %
LIMESTONE	1317-65-3	5 mg/m3	N.E.	5 mg/m3	N.E.	0.00 - 5.00 %
GYPSUM	13397-24-5	5 mg/m3	N.E.	5 mg/m3	N.E.	0.00 - 5.00 %
CALCIUM HYDROXIDE	1305-62-0	5 mg/m3	N.E.	5 mg/m3	N.E.	0.00 - 5.00 %
CALCIUM OXIDE	1305-78-8	2 mg/m3	N.E.	5 mg/m3	N.E.	0.00 - 5.00 %
ANHYDRITE	7778-18-9	10 mg/m3	N.E.	5 mg/m3	N.E.	0.00 - 5.00 %

3. HAZARDS IDENTIFICATION

HMIS® Rating : HEALTH 2* FLAMMABILITY 0 PHYSICAL HAZARD 1

WHMIS Class : D2B
E

Primary Routes of Entry : Ingestion
Inhalation
Eye contact
Skin contact

Effects of Overexposure

THOROSEAL®

Version 1.3

07/09/2004

- Inhalation : Inhalation of dust can cause coughing and labored breathing and possible temporary but reversible irritation on mucous membranes and respiratory tract.
- Skin : Can cause slight to moderate irritation due to abrasive action. In combination with water, repeated or prolonged dermal exposure can cause moderate to severe alkali burns.
- Eyes : Can cause severe irritation, redness, tearing and blurred vision. Prolonged or repeated contact can cause burns and possibly corneal injury.
- Ingestion : Irritating to mouth, throat and stomach.
- Chronic exposure : This product contains Crystalline (quartz) Silica which has been listed as a human carcinogen by NTP (Group 1) and IARC (Human Carcinogen) and a Suspected Human Carcinogen by ACGIH (category A2). Repeated or prolonged over exposure to free respirable Crystalline (quartz) silica can cause silicosis or other delayed and serious lung injury. Repeated or prolonged overexposure to free respirable silica can cause silicosis or other delayed and serious lung injury.

Carcinogenicity

	ACGIH	IARC	NTP	OSHA
SILICA, CRYSTALLINE QUARTZ	Suspected human carcinogen.	Human carcinogen.	Known carcinogen.	N.E.
PORTLAND CEMENT	N.E.	N.E.	N.E.	N.E.
IRON OXIDE	Not classifiable as a human carcinogen.	Classification not possible from current data.	N.E.	N.E.
IRON OXIDE	N.E.	N.E.	N.E.	N.E.
MAGNESIUM OXIDE	Not classifiable as a human carcinogen.	N.E.	N.E.	N.E.
LIMESTONE	N.E.	N.E.	N.E.	N.E.
GYPSUM	N.E.	N.E.	N.E.	N.E.
CALCIUM HYDROXIDE	N.E.	N.E.	N.E.	N.E.
CALCIUM OXIDE	N.E.	N.E.	N.E.	N.E.
ANHYDRITE	N.E.	N.E.	N.E.	N.E.

4. FIRST AID MEASURES

- Eye contact : Flush eyes with water, lifting upper and lower lids occasionally for 15 minutes. Seek medical attention.
- Skin contact : Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Seek medical advice.
- Ingestion : Do not induce vomiting without medical advice. If conscious, drink plenty of water. Call a physician immediately. Never give anything by mouth to an unconscious person. If a person vomits, place him/her in the recovery position.
- Inhalation : Remove victim from exposure. If difficulty with breathing, administer oxygen. If breathing has stopped administer artificial respiration, preferably mouth-to-mouth. Seek immediate medical attention.

5. FIRE-FIGHTING MEASURES

- Flash point : Not combustible.
- Autoignition temperature : Not combustible.

THOROSEAL®

Version 1.3

07/09/2004

Lower explosion limit	:	not applicable
Upper explosion limit	:	not applicable
Suitable extinguishing media	:	water fog carbon dioxide (CO ₂) dry chemical alcohol-resistant foam
Fire and Explosion Hazards	:	This product is alkaline and releases considerable heat on contact with small amounts of water. Avoid contact between resulting hot alkaline paste and metallic aluminum. Such contact could generate hydrogen gas.
Special Fire-fighting Procedures	:	As in any fire, wear pressure demand self-contained breathing apparatus (NIOSH approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Methods for cleaning up	:	Clean up promptly by sweeping or vacuum. Clean thoroughly. After cleaning, flush away traces with water. Keep in suitable, closed containers for disposal. Wear personal protective equipment (refer to section 8).
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7. HANDLING AND STORAGE

Handling	:	Use only in area provided with appropriate ventilation. Keep out of reach of children. Avoid exceeding of the given occupational exposure limits (see section 2). Avoid formation of respirable particles.
Storage	:	Keep container tightly closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Eye protection	:	Wear as appropriate: safety glasses with side-shields face-shield goggles
Hand protection	:	Wear as appropriate: impervious gloves
Body Protection	:	Wear as appropriate: preventive skin protection impervious clothing
Respiratory protection	:	In case of insufficient ventilation wear suitable respiratory equipment. When workers are facing concentrations above the exposure limit they must use NIOSH approved respirators.
Hygienic Practices	:	Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, especially in confined areas. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.
Engineering Controls	:	Local exhaust ventilation can be necessary to control any air contaminants to within their TLVs during the use of this product.

THOROSEAL®

Version 1.3

07/09/2004

9. PHYSICAL AND CHEMICAL PROPERTIES

Color	:	various colors
Physical State	:	powder
Odor	:	Earthy
pH (at 100 %)	:	not applicable
Odor Threshold	:	no data available
Vapor Pressure	:	not applicable
Vapor Density	:	not applicable
Boiling point/range	:	no data available
Freeze Point	:	no data available
Water solubility	:	slightly soluble
Specific Gravity	:	2.70
Viscosity	:	no data available
Evaporation rate	:	no data available
Partition coefficient (n-octanol/water)	:	no data available
VOC Concentration as applied (less water and exempt solvents)	:	0 g/l

10. STABILITY AND REACTIVITY

Stability	:	Stable under recommended storage conditions.
Conditions to avoid	:	no data available
Materials to avoid	:	strong acids and strong bases strong oxidizing agents
Hazardous decomposition products	:	no data available
Hazardous polymerization	:	Will not occur under normal conditions.

11. TOXICOLOGICAL INFORMATION

Acute inhalation toxicity

Type	Value	Species	Exposure time
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THOROSEAL®

Version 1.3

07/09/2004

<u>Product</u>	LC50	no data available	
<u>Component</u>			
SILICA, CRYSTALLINE QUARTZ	LC50	no data available	
PORTLAND CEMENT	LC50	no data available	
IRON OXIDE	LC50	0.96 mg/l	4 h
IRON OXIDE	LC50	no data available	
MAGNESIUM OXIDE	LC50	46 mg/l	1 h
LIMESTONE	LC50	no data available	
GYPSUM	LC50	no data available	
CALCIUM HYDROXIDE	LC50	no data available	
CALCIUM OXIDE	LC50	no data available	
ANHYDRITE	LC50	no data available	

Acute oral toxicity

<u>Product</u>	<u>Type</u> LD50 (Oral)	<u>Value</u> no data available	<u>Species</u>
<u>Component</u>			
SILICA, CRYSTALLINE QUARTZ	LD50 (Oral)	1,300 mg/kg	
PORTLAND CEMENT	LD50 (Oral)	2,000 mg/kg	
IRON OXIDE	LD50 (Oral)	3,700 mg/kg	
IRON OXIDE	LD50 (Oral)	no data available	
MAGNESIUM OXIDE	LD50 (Oral)	5,000 mg/kg	
LIMESTONE	LD50 (Oral)	6,450 mg/kg	rat
GYPSUM	LD50 (Oral)	no data available	
CALCIUM HYDROXIDE	LD50 (Oral)	7,340 mg/kg	rat
CALCIUM OXIDE	LD50 (Oral)	no data available	
ANHYDRITE	LD50 (Oral)	no data available	

Acute dermal toxicity

<u>Product</u>	<u>Type</u> LD50 (Dermal)	<u>Value</u> no data available	<u>Species</u>
<u>Component</u>			
SILICA, CRYSTALLINE QUARTZ	LD50 (Dermal)	no data available	
PORTLAND CEMENT	LD50 (Dermal)	no data available	
IRON OXIDE	LD50 (Dermal)	3,100 mg/kg	
IRON OXIDE	LD50 (Dermal)	no data available	
MAGNESIUM OXIDE	LD50 (Dermal)	3,160 mg/kg	
LIMESTONE	LD50 (Dermal)	no data available	
GYPSUM	LD50 (Dermal)	8,480 mg/kg	
CALCIUM HYDROXIDE	LD50 (Dermal)	2,520 mg/kg	
CALCIUM OXIDE	LD50 (Dermal)	no data available	

THOROSEAL®

Version 1.3

07/09/2004

ANHYDRITE

LD50 (Dermal) no data available

12. ECOLOGICAL INFORMATION

Ecotoxicological Information : There is no data available for this product.

13. DISPOSAL CONSIDERATIONS

Recommendations: Use excess product in an alternate beneficial application. Handle disposal of waste material in manner which complies with local, state, province and federal regulation.

14. TRANSPORT INFORMATION

DOT : Proper shipping name Not regulated

IATA : Proper shipping name Not regulated

15. REGULATORY INFORMATION

SARA 311/312 (RTK)

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

IMMEDIATE (ACUTE) HEALTH HAZARD DELAYED (CHRONIC) HEALTH HAZARD

SARA 313

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

<u>Weight %</u>	<u>CAS No.</u>	<u>Chemical Name</u>
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This product contains no chemicals subject to the SARA 313 supplier notification requirements.

CERCLA

CERCLA section 103(a) specifically requires the person in charge of a vessel or facility to report immediately to the National Response Center (NRC) a release of a hazardous substance whose amount equals or exceeds the assigned RQ. The following hazardous substances are contained in this product.

<u>RQ</u>	<u>CAS No.</u>	<u>Chemical Name</u>
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No CERCLA chemicals exist in this product above reportable concentrations.

TSCA Section 12(b) Export Notification

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

<u>CAS No.</u>	<u>Chemical Name</u>
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There are no TSCA 12(b) Chemicals in this product.

THOROSEAL®

Version 1.3

07/09/2004

California Proposition 65

The chemical(s) noted below and contained in this product, are known to the state of California to cause cancer, birth defects or other reproductive harm. Unless otherwise specified in Section 2 of this MSDS, these chemicals are present at < 0.1%:

<u>CAS No.</u>	<u>Chemical Name</u>
1308-38-9	CHROMIUM OXIDE
1333-86-4	CARBON BLACK
14808-60-7	SILICA, CRYSTALLINE QUARTZ
7439-92-1	INORGANIC LEAD
7440-02-0	NICKEL
7440-38-2	ARSENIC
7440-43-9	CADMIUM

16. OTHER INFORMATION

Legend	:	N.E. - Not Established TLV - Threshold Limit Value STEL - Short Term Exposure Limit PEL - Permissible Exposure Limit CEIL - Ceiling
Prepared By	:	Environment, Health and Safety Department

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End of MSDS.